I claim:

1. A method for reducing splice loss in an optical transmission line, comprising:

(a) generating an electric arc from an arc current, the arc current having a level and duration sufficient to produce an electric arc with an intensity and duration sufficient to achieve a desired splicing temperature at a splice point between a first optical fiber and a second optical fiber positioned within the electric arc;

(b) using the electric arc to splice together the first and second optical fibers; and

(c) ramping the level of the arc current downward over time, thereby creating a downward ramp in temperature at the splice point from the splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss.

2. The method of claim 1, wherein in step (c), the ramping of the arc current is performed automatically by an arc current controller.

3. The method of claim 2, wherein the arc current controller is programmable, and wherein the method further includes the following step performed before step (a):

programming the arc current controller to create a downward ramp in temperature at the splice point from the splicing temperature to a cooler temperature after the first and second fibers have been spliced together, the downward ramp in temperature being shaped to reduce splice loss.

4. The method of claim 1, wherein the first optical fiber is dispersion-compensating fiber.

5. The method of claim 4, wherein the second optical fiber is a bridge fiber.

6. The method of claim 1, wherein the first optical fiber is inverse dispersion fiber.

7. The method of claim 6, wherein each of the first and second optical fibers is inverse dispersion fiber.

8. A method for reducing splice loss in an optical transmission line, comprising:

(a) generating an electric arc from an arc current, the arc current having a level and duration sufficient to produce an electric arc with an intensity and duration sufficient to achieve a desired first splicing temperature at a first splice point between a first optical fiber and a bridge fiber positioned within the electric arc;

(b) using the electric arc to splice together the first optical fiber and the bridge fiber; and

(c) ramping the level of the arc current downward over time, thereby creating a downward ramp in temperature at the first splice point from the first splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss;

(d) removing the first optical fiber and the bridge fiber from the electric arc;

(e) adjusting the arc current to produce an electric arc with an intensity and duration sufficient to achieve a desired second splicing temperature at a second splice

point between the bridge fiber and a second optical fiber positioned within the electric arc;

(f) using the electric arc to splice together the bridge fiber and the second optical fiber; and

(g) ramping the level of the arc current downward over time, thereby creating a downward ramp in temperature at the second splice point from the second splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss.

9. The method of claim 8, wherein the first optical fiber is dispersion-compensating fiber.

10. The method of claim 8, wherein the first optical fiber is inverse dispersion fiber.

11. The method of claim 10, wherein each of the first and second optical fibers is inverse dispersion fiber.

12. A splicer, comprising:

a chassis;

a pair of arc electrodes mounted to the chassis for generating an electric arc;

a variable current source connected to the pair of arc electrodes, the variable current source providing as an output a current for driving the pair of arc electrodes and creating an electric arc of sufficient intensity and duration to achieve a desired splicing temperature at a splice point between first and second optical fibers positioned within the electric arc;

first and second fiber routing guides mounted to the chassis for holding first and second fibers to be spliced together;

a controller connected to the variable current source for automatically creating a downward ramp of the arc current after the first fiber has been spliced to the second fiber, thereby creating a downward ramp in temperature at the splice point from the splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss.

13. The splicer of claim 12, wherein the controller is programmable.

14. An optical transmission line comprising:

a first optical fiber spliced to a second optical fiber at a splice point, the first optical fiber being spliced to the second optical fiber using an electric arc generated from an arc current having a level and duration sufficient to produce an electric arc with an intensity and duration sufficient to achieve a desired splicing temperature at the splice point, the level of the arc current being ramped downward over time after splicing, thereby creating a downward ramp in temperature at the splice point from the desired splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss.

15. The optical transmission line of claim 14, wherein the first optical fiber is dispersion-compensating fiber.

16. The optical transmission line of claim 15, wherein the second optical fiber is a bridge fiber.

17. The optical transmission line of claim 14, wherein the first optical fiber is inverse dispersion fiber.

18. The optical transmission line of claim 17, wherein each of the first and second optical fibers is inverse dispersion fiber.

19. An optical transmission line comprising:

a first optical fiber spliced to a first end of a bridge fiber at a first splice point and a second optical fiber spliced to a second end of the bridge fiber at a second splice point,

the first optical fiber being spliced to the bridge fiber using an electric arc generated from an arc current having a level and duration sufficient to produce an electric arc with an intensity and duration sufficient to achieve a desired first splicing temperature at the first splice point, the level of the arc current being ramped downward over time after the first optical fiber is spliced to the bridge fiber, thereby creating a downward ramp in temperature at the first splice point from the first splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to reduce splice loss,

the second optical fiber being spliced to the bridge fiber using an electric arc generated from an arc current having a level and duration sufficient to produce an electric arc with an intensity and duration sufficient to achieve a desired second splicing temperature at the second splice point, the level of the arc current being ramped downward over time after the second optical fiber is spliced to the bridge fiber, thereby creating a downward ramp in temperature at the second splice point from the second splicing temperature to a cooler temperature, the downward ramp in temperature being shaped to result in a reduction in splice loss.

20. The optical transmission line of claim 19, wherein the first optical fiber is dispersion-compensating fiber.